



Speed v_c (m/min)																	
7700VR Series			Wear Resistance														
			Speed min. - max.														
Coolant Recommendation																	
Recommended ● Possible ○																	
ISO	Materials	Rm and Hardness	Water	CVD X Grade	Water	PVD X Grade	Water	PVD Standard	Water	Uncoated Micrograin	Water	PVD Standard	Water	CVD Standard	Water	Uncoated Micrograin	
			⊕ ⊖	X500	⊕ ⊖	X700	⊕ ⊖	SP6519	⊕ ⊖	GH2	⊕ ⊖	SP4019	⊕ ⊖	MP91M	⊕ ⊖	GH1	
P	Unalloyed Steel	<600 N/mm ² <180 HBN	○ ●	130 - 270				130 - 295				●	140 - 315	●	140 - 345		
		<950 N/mm ² <280 HBN	○ ●	115 - 240				115 - 260				●	120 - 275	●	120 - 305		
		700-950 N/mm ² 200-280 HBN	○ ●	100 - 210				100 - 230				●	105 - 245	●	105 - 270		
	Alloyed Steel	950-1200 N/mm ² 280-355 HBN	○ ●	75 - 160				75 - 175				●	80 - 190	●	80 - 205		
		1200-1400 N/mm ² 355-415 HBN	○ ●	50 - 100				50 - 110				●	50 - 120	●	50 - 130		
M	Stainless Steel	Austenitic + Ferritic 300 series	○ ●	115 - 250	○ ●	115 - 260	○ ●	115 - 270			○ ●	120 - 280					
		Martensitic 400 series	○ ●	100 - 220	○ ●	105 - 230	○ ●	105 - 235			○ ●	110 - 250					
	PH Stainless	Refractory P.H.	●	50 - 110	●	50 - 115	●	50 - 120			●	50 - 130					
K	Cast Iron	Grey GG-Ft	○ ●	120 - 280				140 - 295				●	145 - 330	●	145 - 365		
		Spheroidal-Ductile GGG-FGS	○ ●	105 - 205				110 - 240				●	115 - 255	●	115 - 285		
		Malleable GTS - MN/MP	○ ●	95 - 170				100 - 220				●	105 - 235	●	105 - 260		
N	Aluminium & Alloys	Aluminium & Alloys < 16% Si 116 HBN							●	400 - 2745	●	400 - 2895			●	400 - 3050	
		Aluminium + Silicon > 16% Si 92 HBN								●	295 - 2135	●	295 - 2320			●	295 - 2440
S	High Temperature Alloys	Iron Based	●	23 - 48	●	23 - 52	●	23 - 55			●	24 - 63					
		Cobalt Based		21 - 44		22 - 46		22 - 48				23 - 52					
		Nickel Based		24 - 51		25 - 53		25 - 55				26 - 59					
		Titanium Based		35 - 73		36 - 75		36 - 79				37 - 84					
H	Hard Materials	Hard Steel >1400 N/mm ² >415 HBN															
		Chilled Cast Iron >1400 N/mm ² >400 HBN															